# STATE OF MISSOURI



# **DEPARTMENT OF NATURAL RESOURCES**

**MISSOURI AIR CONSERVATION COMMISSION** 

# **PERMIT TO CONSTRUCT**

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number:	03201	0-006	Project Numb	er: 2009-10-029
Parent Company:		States Limestone LI	_C	
Parent Company	Address: 48531	Highway 6, Milan,	MO 63556	
Installation Name	: Twin S	States Limestone Po	ORT-0612	
Installation ID:	PORT	-0612		
Installation Addre	ss: Petty I	Mill Trail, Unionville	, MO 63565	
Location Informat	ion: Putna	m County, S78, T66	6N, R17W	
Moving PORT-06	21 to Putnam Quucted in accorda	ance with Section (	oment being added t 6), Missouri State F	
Standard C	Conditions (on re	everse) are applicat	ole to this permit.	
Standard C	Conditions (on re	everse) and Special	Conditions are app	olicable to this
MAR 1 5 20	010	James	e (Kayranau	h
EFFECTIVE DAT	E	<i>i j</i>	OR DESIGNEE	RESOURCES

#### STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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Permit No.	
Project No.	2009-10-029

#### **GENERAL SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

- Superseding Condition
   The conditions of this permit supersede all special conditions found in the previously issued construction permit 082008-018 from the Air Pollution Control Program.
- 2. Portable Equipment Identification Requirement
  Twin States Limestone PORT-0612 shall maintain easily read permanent markings on
  each component of the plant. These markings shall be the equipment's serial number
  or a company assigned identification number that uniquely identifies the individual
  component. These identification numbers must be submitted to the Air Pollution Control
  Program no later than 15 days after start-up of the portable rock crushing plant.
- 3. Relocation of Portable Rock Crushing Plant
  - A. Twin States Limestone PORT-0612 shall not be operated at any location longer than 24 consecutive months.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.
    - 1.) If the portable rock crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
    - 2.) If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed, then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.

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Permit No.	
Project No.	2009-10-029

# SITE SPECIFIC SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

PORT ID Number: PORT-0612 Site ID Number: 171-0020 Site Name: Putnam Quarry

Site Address: Petty Mill Trail Unionville, MO 63565

Site County: Putnam S78, T66N, R17W

# 1. Superseding Condition

The conditions of this permit supersede all special conditions found in the previously issued construction permit 082008-018 from the Air Pollution Control Program.

2. Best Management Practices Requirement

Twin States Limestone PORT-0612 shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.

#### 3. Ambient Air Impact Limitation

- A. Twin States Limestone PORT-0612 shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM<sub>10</sub>) of 150.0 μg/m<sup>3</sup> 24-hour average in ambient air.
- B. Twin States Limestone PORT-0612 shall demonstrate compliance with special condition 3.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form. Twin States Limestone PORT-0612 shall account for the impacts from other sources of PM<sub>10</sub> as instructed in Attachment A.
- C. Twin States Limestone PORT-0612 is exempt from the requirements of special condition 3.B when no other plants are operating at this site.

#### 4. Annual NO<sub>x</sub> Emission Limit

- A. Installation shall emit less than 40.0 tons of in any 12-month period from the entire installation.
- B. Installation shall demonstrate compliance with special condition 4.A using Attachment B or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

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Permit No.	
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#### SITE SPECIFIC SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

- 5. Moisture Content Testing Requirement
  - A. Twin States Limestone PORT-0612 shall verify that the moisture content of the processes rock is greater than or equal to 1.5% weight.
  - B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
  - C. The initial test shall be conducted at least 45 day after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.
  - D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).
  - E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Twin States Limestone PORT-0612 main office within 30 days of completion of the required test.
  - F. If the moisture content of either of the two tests is less than the moisture content in special condition 4.A, another test may be performed with 15 days of the noncompliant test. If the results of that test also exceed the limit, Twin States Limestone PORT-0612 shall either:
    - 1.) Apply for a new permit to account for the revised information, or
    - 2.) Submit a plan for the installation of wet spray devices to the Air Pollution Control Program Compliance Assistance section within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.
- 6. Minimum Distance to Property Boundary Requirement
  The primary emission point shall be located at least 750 feet from the nearest property boundary.
- 7. Record Keeping Requirement
  Twin States Limestone PORT-0612 shall maintain all records required by this permit for five
  years and make them available to any Missouri Department of Natural Resources
  personnel upon request.
- 8. Reporting Requirement
  Twin States Limestone PORT-0612 shall report to the Air Pollution Control Program
  Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than ten days after

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Permit No.	
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SITE SPECIFIC SPECIAL	CONDITIONS	3:
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any exceedances of the limitations imposed by this permit.

# REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE SECTION (6) REVIEW

Project Number: 2009-10-029
Installation ID Number: PORT-0612
Permit Number:

Complete: October 14, 2009

Twin States Limestone PORT-0612 Petty Mill Trail Unionville, MO 63565

Parent Company: Twin States Limestone LLC 48531 Highway 6 Milan, MO 63556

Putnam County, S78, T66N, R17W

#### PROJECT DESCRIPTION

Twin States Limestone LLC had PORT-0612 permitted in the year 2008. On October 2, 2009, the Air Pollution Control Program received a relocation request to move PORT-0612 to Putnam Quarry. After reviewing the application it was discovered that in the original permit some equipment was not accounted for. This included 6 conveyors, storage pile activities and a diesel engine. These pieces of equipment and activities have been accounted for in this permit. The diesel engine emissions were accounted for when calculating the total emissions in construction permit 082008-018 but the engine was not included in the NAAQS analysis. This resulted in the diesel engine being included in this permit. This plant has a maximum hourly design rate of 120 tons per hour and is powered by a 350 horsepower diesel engine. There is currently no other plants located at this site (171-0020).

The applicant is using one of the methods described in Attachment AA, "Best Management Practices," to control emissions from haul roads and vehicular activity areas.

This installation is located in Putnam County, an attainment area for all criteria pollutants.

This installation is not on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 250 tons per year and fugitive emissions are not counted toward major source applicability.

This permit is for the equipment not accounted for in the original permit and for the relocation of the plant to Putnam County. There is a annual limit of 40.0 tons per year of  $NO_x$  that has been implemented in the permit in order to stay below de minimis level and avoid dispersion modeling. This limit is based on the new equipment only. If this  $NO_x$  limit is followed all other pollutant will be in compliance.

#### **TABLES**

The following list of equipment that has or will be permitted for PORT-0621.

Table 1: Equipment List

Emission Point	Description (SCC 3-05-020-07)
EP-01a	Load In, Storage Pile #1 30502007
EP-01b	Wind Erosion, Storage Pile #1 30502507
EP-01c	Vehicular Activity, Storage Pile #1 30502007
EP-01d	Load Out, Storage Pile #1 30502007
EP-02	Haul Road #1
EP-03	Haul Road #2
EP-04	Apron Feeder (chain conveyor)
EP-05	Hammermill
EP-06	30" Under Conveyor
EP-07	30" Overhead Conveyor
EP-08	4' x 12' Cedar Rapids Screen
EP-09	24" Discharge Conveyor
EP-10	30" Discharge Conveyor
EP-11	24" Discharge Conveyor
EP-12	Return Conveyor
EP-13	Surge Bin w/ 36" Under Conveyor
EP-14	Diesel Engine
EP-15a	Load In, Storage Pile #2 30502007
EP-15b	Wind Erosion, Storage Pile #2 30502507
EP-15c	Vehicular Activity, Storage Pile #2 30502007
EP-15d	Load Out, Storage Pile #2 30502007

The following permits have been issued to Twin States Limestone PORT-0612 from the Air Pollution Control Program.

Table 2 Permit History

	· <i>j</i>
Permit Number	Description
082008-018	New Portable Plant

Table 3 on the following page summarizes the emissions of this project. The existing potential emissions of the installation were taken from permit # 082008-018. The potential emissions of the project represent the emissions of just the new equipment being added and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions of the project are based on a voluntary limit to avoid dispersion modeling requirements found in 10 CSR 10-6.060 Section (6). The conditioned potential emissions of the installation represent the emissions based on the limit taken in this permit.

Table 3 Emissions Summary (tons per year)

		<sup>1</sup> Existing	Existing	Potential	<sup>2</sup> Conditioned	<sup>3</sup> Conditioned
		Potential	Actual	Emissions	Potential	Potential of
Air	De Minimis	Emissions of	Emissions	of the	Emissions of	the
Pollutant	Level	the Installation	(2008 EIQ)	Project	the Project	Installation
PM <sub>10</sub>	15.0	27.13	0.04	29.48	24.02	27.52
SO <sub>X</sub>	40.0	4.82	N/A	3.23	2.63	2.63
$NO_X$	40.0	38.20	N/A	49.13	<40.00	<40.00
VOC	40.0	0.98	N/A	4.01	3.27	3.27
CO	100.0	10.15	N/A	10.58	8.62	8.62
Total HAPs	10.0/25.0	0.02	N/A	0.04	0.04	0.04

N/A = Not Applicable

Table 4 Ambient Air Quality Impact Analysis

Pollutant	¹NAAQS (µg/m³)	Averaging Time	<sup>2</sup> Maximum Modeled Impact (µg/m <sup>3</sup> )	Limited Impact (µg/m³)	Background (µg/m³)	<sup>3</sup> Daily Limit (tons/day)
<sup>4</sup> PM <sub>10</sub> (same)	150.0	24-hour	38.10	N/A	20.0	N/A
<sup>5</sup> PM <sub>10</sub> (separate)	150.0	24-hour	N/A	N/A	50.0	N/A

<sup>&</sup>lt;sup>1</sup>National Ambient Air Quality Standards (NAAQS)

#### **EMISSIONS CALCULATIONS**

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (EPA) document AP-42 Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Fifth Edition (AP-42).

Emissions from the rock-crushing equipment were calculated using emission factors from AP-42 Section 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing," August 2004. The controlled emission factors were used because the inherent moisture content of the crushed rock is greater than 1.5% weight.

Emissions from the diesel engine/generator were calculated using emission factors from AP-42 Section 3.3 "Gasoline and Diesel Industrial Engines," October 1996.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 "Unpaved Roads," November 2006. A 90% control efficiency is applied to the emission calculations for the use of BMPs.

<sup>&</sup>lt;sup>1</sup>Existing Potential Emissions taken from the Permit# 082008-018

<sup>&</sup>lt;sup>2</sup>Conditioned Potential Emissions of the Project is based on a voluntary NO<sub>s</sub> limit of 40.0 tons per year.

<sup>&</sup>lt;sup>3</sup>Conditioned Potential Emissions of the Installation is based on a voluntary NO<sub>s</sub> limit of 40.0 tons per year.

<sup>&</sup>lt;sup>2</sup>Modeled impact at maximum capacity with controls

<sup>&</sup>lt;sup>3</sup>Indirect limit based on compliance with NAAQS.

<sup>&</sup>lt;sup>4</sup>Solitary operation or operation with other plants that are owned by Twin States Limestone LLC

<sup>&</sup>lt;sup>5</sup>Operation with other plants that are not owned by Twin States Limestone LLC

Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4 *Aggregate Handling and Storage Piles*. The moisture content of the aggregate is 1.5% weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program's Emissions Inventory Questionnaire Form 2.8 "Storage Pile Worksheet."

# AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of PM<sub>10</sub>. The Air Pollution Control Program requires an AAQIA of PM<sub>10</sub> for all asphalt, concrete and rock-crushing plants regardless of the level of PM<sub>10</sub> emissions if a permit is required. The AAQIA was performed using the Air Pollution Control Program's generic nomographs. The maximum concentration of PM<sub>10</sub> that occurred at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS). The distance from the plant to the nearest site boundary is 750 feet. When the plant operates continuously, the modeled concentration of PM<sub>10</sub> is in compliance with the NAAQS. If Twin States Limestone PORT-0612 operates with any other plants, PORT-0612 must track production in order to show compliance with the NAAQS.

This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of  $20 \mu g/m^3$  of  $PM_{10}$  in accordance with the Air Pollution Control Program's BMPs interim policy.

#### **OPERATING SCENARIOS**

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Twin States Limestone PORT-0612 shall demonstrate compliance with the NAAQS.

- When plants that are owned by Twin States Limestone LLC are located at the site, Twin States Limestone LLC must calculate the daily impact of each plant and limit the total impact of all plants below the NAAQS. If Twin States Limestone PORT-0612 is the only plant located at the Putnam Quarry site (171-0020) no record keeping is necessary.
- When plants that are not owned by Twin States Limestone LLC are located at the site, Twin States Limestone LLC must account for the impacts of these plants as a background concentration and add it to the total impact of all plants owned by Twin States Limestone LLC that are operating at the site. This total is limited below the NAAQS.
  - Twin States Limestone LLC will limit the total impact of all plants they own and operate at the site to 100.0 μg/m³ when any plants they do not own are located at the site. Twin States Limestone PORT-0612 is not permitted to operate with any plant that is not owned by Twin States Limestone LLC that has a separate owner limited impact greater than 30.0 μg/m³.

#### PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM<sub>10</sub> are conditioned below de minimis levels.

#### APPLICABLE REQUIREMENTS

Twin States Limestone PORT-0612 shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved.

#### **GENERAL REQUIREMENTS**

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110. The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required June 1 for the previous year's emissions.
- No Operating Permit is required for this installation.
- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220
- Restriction of Emission of Odors, 10 CSR 10-3.090

#### SPECIFIC REQUIREMENTS

- Restriction of Emission of Particulate Matter From Industrial Processes, 10 CSR 10-6.400
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.
- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260

### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Gerad Fox	 Date	
	Dale	
Environmental Engineer		

# PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 1, 2009, received October 2, 2009, designating Twin States Limestone LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, Compilation of Air Pollutant Emission Factors, Fifth Edition.

# **Attachment M: Ambient Impact Tracking Sheet**

Twin States Limestone PORT-0612 Project Number: 2009-10-029

Site Name: Putnam Quarry

Site Address: Petty Mill Trail, Unionville, MO 63565

Site County: Putnam, S78, T66N, R17W

This sheet covers the period from \_\_\_\_\_\_ to \_\_\_\_\_ (Copy as needed)

(Month, Day Year)(Month, Day Year)

(Month, Day Year)											
	A.E. Simpson Construction, Inc.			Same Owner Plant Plant Name:	Same Owner Plant Plant Name:	Separate Owner Plant Plant Name:					
	PORT-0657			Plant ID:	Plant ID:	Plant ID:					
	Project #: 2009-10-040			Permit #:	Permit #:	Permit #:	_	_			
	Daily	Impact					Back-	Total			
	Production	Factor	Impact <sup>1</sup>	Impact <sup>2</sup>	Impact <sup>2</sup>	Impact <sup>3</sup>	ground	Impact <sup>4</sup>			
Date	(tons)	(µg/m³ton)	(µg/m³)	(µg/m³)	Impact <sup>2</sup> (µg/m³)	(µg/m³)	(µg/m³)	Impact <sup>4</sup> (µg/m³)			
Example	3,220	0.0132	42.5	10.2	N/A	30.0	20.0	102.7			
		0.0132				30.0	20.0				
		0.0132				30.0	20.0				
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<sup>&</sup>lt;sup>1</sup>Calculate the impact for PORT-0612 by multiplying the daily production by the impact factor.

<sup>&</sup>lt;sup>2</sup>Input the impact for any plants owned by Twin States Limestone LLC that are operating on the site.

<sup>&</sup>lt;sup>3</sup>This is maximum impact that any separate owner plant can use. PORT-0612 can not operate with any separate owner plant(s) that exceeds 30.0 μg/m<sup>3</sup> of ambient impact. If no separate owner plants are located at this site the 30.0 μg/m<sup>3</sup> should not be included in the Total Impact

<sup>&</sup>lt;sup>4</sup>Calculate the total impact by adding the applicable impacts and background. Include the separate owner plant impact if a plant that is not owned by Twin States Limestone LLC is located at the site. A total of 150.0 µg/m³ or less is necessary for compliance.

# Attachment B: Annual NO<sub>x</sub> Emissions Tracking Sheet

Twin States Limestone PORT-0612 Project Number: 2009-10-029

Site Name: Putnam Quarry

Site Address: Petty Mill Trail, Unionville, MO 63565

Site County: Putnam, S78, T66N, R17W

om \_\_\_\_\_\_to \_\_\_\_\_(Copy as needed)
(Month, Day Year)(Month, Day Year) This sheet covers the period from \_\_\_

(Month, Day Year)(Month, Day Year)										
	Diesel Fuel		_ Monthly	Monthly	12-Month Total					
	Usage	Emission Factor	Emissions <sup>1</sup>	Emissions <sup>2</sup>	Emissions <sup>3</sup>					
Month	(gallons)	(lb/ton)	(lbs)	(tons)	(tons)					
Example	3,972	0.6042	2,400.0	1.2	14.46					
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<sup>&</sup>lt;sup>1</sup>Multiply the monthly fuel usage by the emission factor.

<sup>&</sup>lt;sup>2</sup>Divide the monthly emissions (lbs) by 2000.

<sup>&</sup>lt;sup>3</sup>Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 40.0 is necessary for compliance.

## **Attachment AA: Best Management Practices**

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

# 1. Pavement

- A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions<sup>1</sup> while the plant is operating.
- B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

# 2. Application of Chemical Dust Suppressants

- A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
- B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacture's recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
- C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.

#### 3. Application of Water-Documented Daily

- A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
- B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
- C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
- D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rational for not watering (e.g. freezing conditions or not operating).
- E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request

<sup>&</sup>lt;sup>1</sup>For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)

Mr. Pat Swan Plant Manager Twin States Limestone PORT-0612 48531 Highway 6 Milan, MO 63556

RE: New Source Review Permit - Project Number: 2009-10-029

Dear Mr. Swan:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions and your new source review permit application is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact Gerad Fox, at the Department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale New Source Review Unit Chief

KBH:gfk

Enclosures

c: Northeast Regional Office PAMS File: 2009-10-029

Permit Number: